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ACIDIC PRECIPITATION
IN ONTARIO STUDY

ANNUAL STATISTICS
OF CONCENTRATION:
CUMULATIVE AMBIENT
AIR MONITORING NETWORK
1987

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1987

Report prepared by:
Atmospheric Research and Special Projects Section
Air Resources Branch
Ontario Ministry of the Environment

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This report was prepared by Diane Green of the APIOS Atmospheric Deposition and Chemistry Program. However, the data themselves are a product of the combined efforts of many individuals. Precipitation samples were collected by a large number of site operators, whose names cannot be individually mentioned here, under the coordination of the APIOS environmental technicians Scott Kennedy (in the Southwestern Region), Steve Elliott (in Southeastern Region), Wim Smits (in Northwestern Region), Bill Trayling (Northeastern Region), and J.P. Varto (in Central Region). Sample handling was carried out by Sue Lampinen and Gail Fielding. Chemical analyses were performed at the Laboratory Services Branch under the coordination of Frank Tomassini. Invaluable clerical and computer assistance were provided by Peter Maheras, Joseph Lamb and Roberto Banchon. All enquiries regarding the reported data should be directed to Neville Reid, Coordinator, Atmospheric Deposition and Chemistry Program, at (416) 326-1691.

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PART I

INTRODUCTION

INTRODUCTION

The data listed herein are a summary of the results acquired from the APIOS cumulative ambient air sampling network from January 1987 to December 1987. All data presented in this report have been screened for validity. Remarks and qualifications have been appended to records, and/or results where necessary. The screening procedure involves the application of a Dixon Ratio Test to concurrent data from all the sites in the same region over a given sampling period. Field comments are referred to in order to assist in the identification of problematic samples. Samples that were determined to be obvious outliers were flagged as unreliable ("U"). The sampler utilized for cumulative ambient air sampling is the Metrex AS-2 low volume air sampler. The sampler is loaded and the filter pack is exposed for 28 days beginning at 0700 h EST and terminating at 0700 h EST at the end of the sampling period. Sampling details are described in another document¹.

Station Identification

The station identification is defined by four descriptive fields (e.g. - Dorset/Cumulative/LoVol #20). The first field refers to the sampling location. The second and third fields describe the sampling interval and the instrumentation used respectively. The last numeric field refers to the index code utilized on the location map.

INTRODUCTION

This report was prepared by Diane Green. The statistical summaries presented in this report pertain to the 1987 analytical results obtained from the Acidic Precipitation in Ontario Study (APIOS) cumulative ambient air monitoring network. The relevant data can be obtained on request from the Air Resources Branch of the Ontario Ministry of the Environment. Any sample of which sampling period is less than 23 days or greater than 33 days is not included in the statistics calculations. All available data are utilized in the calculations except results reported as being unreliable (i.e., results are identified as unreasonable values by using the validation procedures; detailed description of the validation procedure is available from the Ministry upon request) or approximate (i.e., inexact results are reported due to laboratory difficulties, such as may be encountered in calibration or when the samples cannot be analyzed to confirm the reported values). In a very few cases, concentration levels exceeded the upper limit of the range of the chemical analysis. Rather than using the upper limit, a decision was made to exclude these values from the statistics generated in this report. Results labelled as <W are replaced by "zero". W is the level which the analytical technique cannot distinguish from zero. Prior to 1987, if a level was recorded less than one detection limit T, a value corresponding to one half the detection limit was utilized for statistical calculations as reported in the statistical summaries.

These values are no longer halved. Note that T is normally about ten times W, and values above the T criteria are considered to be precise and accurate. W corresponds to approximately one standard deviation of low level duplicate of real samples. In the presented statistics summaries, "Total Sulphur" is calculated by the summation of sulphur of Sulphur Dioxide" and "Sulphate".

Beginning in 1985, "Sulphur Dioxide" is corrected by the addition of nylon filter sulphate. In these reports sulphur loading on nylon filters is interpreted as sulphur dioxide. However, it is possible that organic sulphur compounds also contribute to this loading. Methods do not currently exist to quantify this contribution in routine network operation.

The statistical summaries presented in Parts III to IV include number of samples, mean (arithmetic/geometric), standard deviation (arithmetic/geometric), maximum, minimum, quartiles. These statistics are for an average sampling period.

Whatman 40 Blank Filters

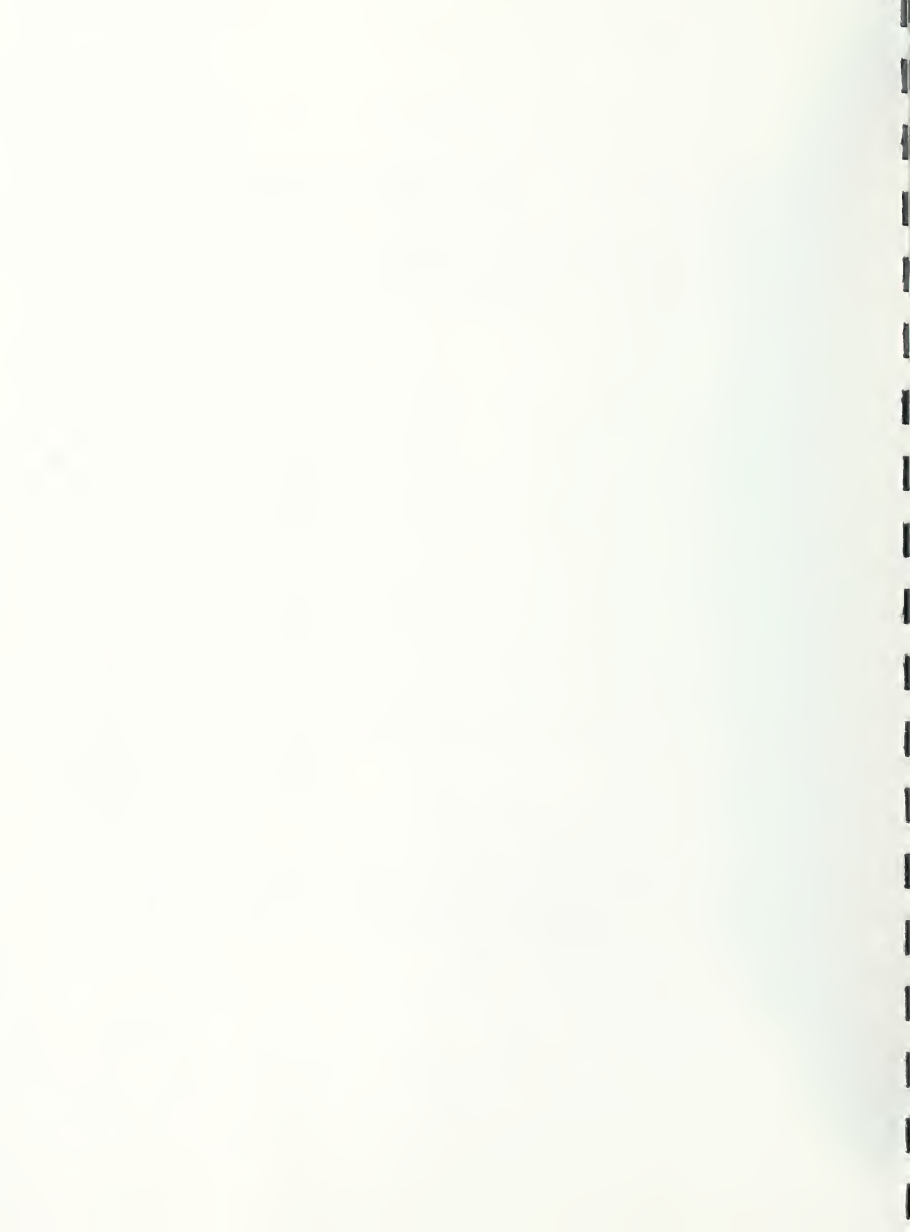
The occurrence of non-zero blank values for the Whatman 40 filters used in the cumulative network should be borne in mind when interpreting data from this method. Typical loadings (mg/filter) for these blank filters, are summarized in Table 1.

Table 1

Chemical of Filters Parameters	Total Samples	Blank Loading ($\mu\text{g}/\text{filter}$)		Number $\geq W$
		Mean*	S.D.*	
Sulphate	107	5.0 <T	0	22
Nitrate	107	1.4 <T	0.3	25
Calcium	96	2.88	0.68	96
Magnesium	97	0.69	1.33	65
Aluminum	97	0.59	0.56	45
Cadmium	97	0.010	0.006	91
Copper	97	0.03	0.02	70
Iron	97	0.92	0.70	95
Manganese	97	0.20	0.51	35
Nickel	97	0.04	0.07	54
Lead	97	0.12	0.13	38
Vanadium	97	0.02	0.002	36
Zinc	97	0.23	0.13	39
Sodium	107	2.66	0.95	106
Potassium	103	1.16	1.50	103
Chloride	107	8.8	2.8	105

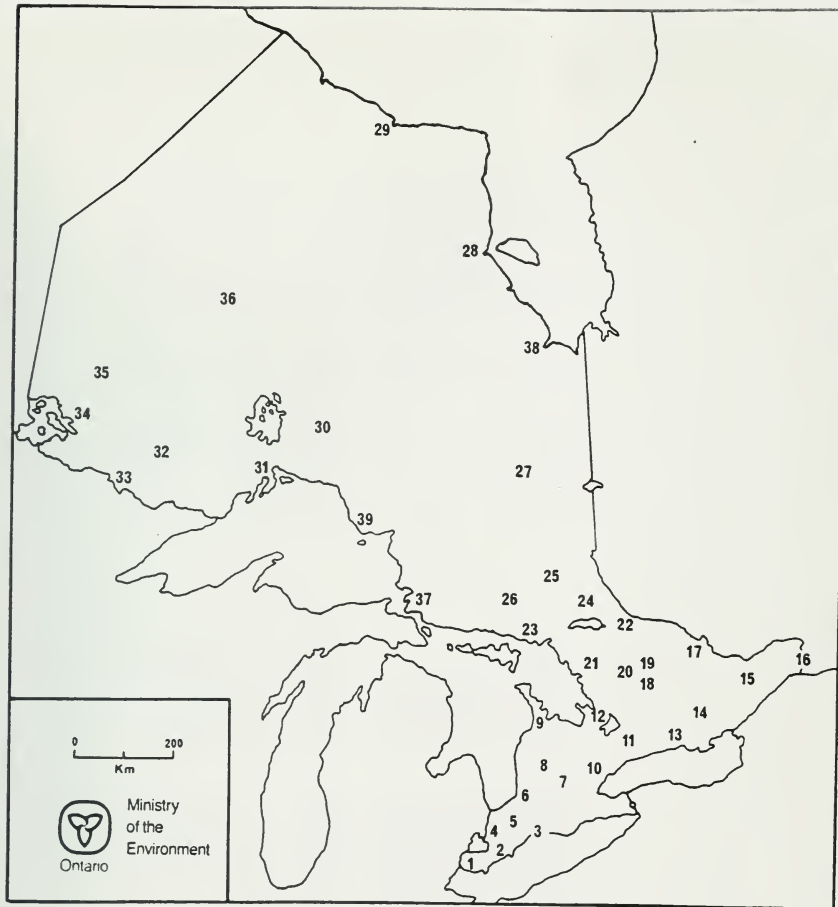
*Calculated for $\geq W$ values only.

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PART II

STATION DESCRIPTION AND LOCATION MAP



- | | | |
|---|--|---|
| 1. Colchester* | 15. Smith's Falls* | 29. Winisk (rem. Dec '86) |
| 2. Merlin | 16. Dalhousie Mills* | 30. Geraldton (replaced
Nakina, Aug '83) |
| 3. Pt. Stanley* | 17. Golden Lake* | 31. Dorion* |
| 4. Wilkesport* | 18. Wilberforce | 32. Quetico Centre* |
| 5. Alvinston | 19. Whitney | 33. Lac la Croix |
| 6. Huron Park | 20. Dorset* | 34. Experimental Lakes Area |
| 7. Waterloo | 21. McKellar* | 35. Ear Falls* |
| 8. Paimeterston* | 22. Mattawa* | 36. Pickle Lake* |
| 9. Shallow Lake* | 23. Killarney* | 37. Turkey Lake* |
| 10. Milton (removed
March '84) | 24. Bear Island | 38. Moosonee* (installed
October '85) |
| 11. Uxbridge* | 25. Gowganda* | 39. Otter Island*
(summer only) |
| 12. Coldwater | 26. Azure Lake (repl.
Ramsey, June '83) | 40. Sutton, Quebec
(Intercomparison
Site) |
| 13. Campbellford* | 27. Moonbeam* | |
| 14. Cloyne* (repl.
Kalladar, June '83) | 28. Attawapiskat
(rem. Feb '84) | |

* indicates both a wet and dry deposition network site

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS-ACIDIC PRECIPITATION IN ONTARIO STUDY
 CUMULATIVE AMBIENT AIR SITES

STATION ID	MOE REGION	STATION NAME	ELEV (M)	LATITUDE (NORTH)	LONGITUDE (WEST)	UTM GRID CO-ORDINATES (NORTHING) (EASTING)
000001-22-21-1041	SOUTHWESTERN	COLCHESTER	183	41°59'15"	82°55'41"	340284
000001-22-21-1061	SOUTHWESTERN	PORT STANLEY	213	42°40'22"	81°09'55"	4724277
000001-22-21-1071	SOUTHWESTERN	WILKESPORT	183	42°42'11"	82°21'13"	4728515
000001-22-21-1091	SOUTHWESTERN	SHALLOW LAKE	229	44°34'54"	81°06'58"	4936270
000001-22-21-1101	SOUTHWESTERN	PALMERSTON	389	43°48'19"	80°54'12"	4850035
000001-22-21-3011	CENTRAL	DORSET	320	45°13'26"	78°55'52"	5009656
000001-22-21-3061	CENTRAL	UXBRIDGE	244	44°12'46"	79°12'38"	4896847
000001-22-21-3081	CENTRAL	CAMPBELLFORD	175	44°17'28"	79°47'33"	4907783
000001-22-21-4061	SOUTHEASTERN	SMITH'S FALLS	122	44°56'41"	75°57'48"	4977044
000001-22-21-4071	SOUTHEASTERN	DALHOUSIE MILLS	69	45°19'00"	74°28'13"	5018048
000001-22-21-4081	SOUTHEASTERN	GOLDEN LAKE	160	45°36'48"	77°12'03"	5053226
000001-22-21-4091	SOUTHEASTERN	CLOYNE	259	44°9'10"	77°11'07"	4964999
000001-22-21-5011	NORTHEASTERN	MCKELLAR	244	45°31'15"	79°55'19"	5041158
000001-22-21-5021	NORTHEASTERN	KILLARNEY	183	45°58'20"	81°29'18"	5090859
000001-22-21-5031	NORTHEASTERN	NATTAWA	198	46°16'39"	78°49'19"	5126968
000001-22-21-5061	NORTHEASTERN	GOMGANDA	343	47°39'04"	80°46'32"	5277329
000001-22-21-5071	NORTHEASTERN	MOONBEAM	244	49°19'40"	82°01'10"	5464175
000001-22-21-5141	NORTHEASTERN	TURKEY LAKES	440	47°03'15"	84°24'20"	5214246
000001-22-21-5161	NORTHEASTERN	MOOSEE	8	51°12'35"	80°42'20"	5672970
000001-22-21-5201	NORTHEASTERN	MCFARLANE LAKE	246	46°25'57"	81°57'03"	5142324
000001-22-21-6011	NORTHWESTERN	DORION	244	48°50'33"	88°36'45"	5410982
000001-22-21-6031	NORTHWESTERN	FAIR FALLS	350	50°38'31"	93°13'13"	5609814
000001-22-21-6041	NORTHWESTERN	PICKLE LAKE	360	51°02'41"	90°12'04"	5658308
000001-22-21-6071	NORTHWESTERN	QUETICO CENTRE	420	48°24'46"	91°12'08"	5363461
000001-22-21-6111	NORTHWESTERN	OTTER ISLAND	204	48°06'50"	86°04'25"	5329155
000001-22-21-6121	NORTHWESTERN	GERALTON	350	49°48'18"	86°45'52"	5161758

PART III

SUMMARY STATISTICS OF OBSERVED CONCENTRATION BY STATION

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION-CAMPBELLFORD LOWEL SITE NO.1

	SULFUR DIOX UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	CALCIUM UG/M3	CHLORIDE UG/M3	POTASSIUM UG/M3
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	5.95	6.73	3.531	11.772	3.462	0.558	0.527
MINIMUM	1.19	2.37	0.065	0.239	0.242	0.260	0.040
ARITH. MEAN	3.53	3.79	0.469	1.675	1.210	0.378	0.143
ARITH. STD. DEV	1.46	1.61	1.077	3.552	1.156	0.098	0.153
GEOM. MEAN	3.22	3.54	0.167	0.715	0.803	0.368	0.103
1ST QUARTILE	2.58	2.59	0.081	0.451	0.361	0.303	0.059
2ND QUARTILE	3.13	3.29	0.138	0.560	0.544	0.360	0.092
3RD QUARTILE	4.67	5.01	0.183	0.801	2.258	0.449	0.165
MISSING VALUES	2	2	1	1	2	2	2
		IRON	ALUMINIUM	MAGNESIUM	LEAD	MANGANESE	COPPER
		UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	0.375	0.280	0.386	0.177	0.025	0.0162	0.004
MINIMUM	0.073	0.035	0.034	0.004	0.003	0.0037	0.001
ARITH. MEAN	0.196	0.125	0.122	0.061	0.016	0.0080	0.002
ARITH. STD. DEV	0.106	0.080	0.109	0.051	0.008	0.0042	0.001
GEOM. MEAN	0.172	0.103	0.109	0.043	0.013	0.0072	0.002
1ST QUARTILE	0.113	0.057	0.051	0.033	0.009	0.0049	0.001
2ND QUARTILE	0.188	0.124	0.124	0.046	0.015	0.0063	0.002
3RD QUARTILE	0.277	0.176	0.243	0.085	0.022	0.0112	0.004
MISSING VALUES	2	2	2	2	2	2	2
	NICKEL	ZINC	CADMIUM	SULFATE NYL	TOTAL SULFUR	TOTAL NITRATE	TOTAL N
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M**3	UG/M**3	UG/M**3
# OF SAMPLES	11	11	11	11	11.00	11.00	11.00
MAXIMUM	0.00362	0.0013	0.0238	0.02330	3.76	15.30	15.30
MINIMUM	0.00045	0.0003	0.0017	0.00039	1.84	0.31	0.31
ARITH. MEAN	0.00158	0.0008	0.00158	0.00387	3.03	2.14	2.14
ARITH. STD. DEV	0.00121	0.0003	0.0078	0.00737	0.68	4.63	4.63
GEOM. MEAN	0.00122	0.0008	0.00123	0.00150	2.95	0.89	0.89
1ST QUARTILE	0.00070	0.0005	0.0087	0.00059	2.36	0.55	0.55
2ND QUARTILE	0.00083	0.0007	0.0180	0.00082	3.25	0.68	0.68
3RD QUARTILE	0.00276	0.0012	0.0220	0.00307	3.53	0.98	0.98
MISSING VALUES	2	2	2	2	2.00	2.00	2.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION-COLCHESTER LOWEL SITE NO.1

	SULFUR DIOX UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	CALCIUM UG/M3	CHLORIDE UG/M3	POTASSIUM UG/M3
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	41.15	14.32	0.704	1.625	1.405	1.091	0.226
MINIMUM	8.20	0.13	0.132	0.791	0.362	0.520	0.071
ARITH. MEAN	14.88	5.98	0.305	1.119	0.843	0.737	0.118
ARITH. STD. DEV	8.91	3.66	0.157	0.229	0.296	0.177	0.041
GEOM. MEAN	13.32	4.34	0.275	1.098	0.792	0.719	0.112
1ST QUANTILE	9.85	3.84	0.208	0.909	0.641	0.620	0.083
2ND QUANTILE	11.24	4.72	0.247	1.183	0.815	0.705	0.113
3RD QUANTILE	18.15	8.50	0.382	1.234	1.095	0.796	0.134
MISSING VALUES	0	0	0	0	0	0	0
	SODIUM UG/M3	IRON UG/M3	ALUMINIUM UG/M3	MAGNESIUM UG/M3	LEAD UG/M3	MANGANESE UG/M3	COPPER UG/M3
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	0.389	0.383	0.472	0.308	0.072	0.0173	0.007
MINIMUM	0.140	0.110	0.025	0.004	0.008	0.0097	0.002
ARITH. MEAN	0.215	0.228	0.164	0.169	0.028	0.0134	0.004
ARITH. STD. DEV	0.085	0.066	0.131	0.082	0.018	0.0025	0.001
GEOM. MEAN	0.203	0.219	0.124	0.128	0.023	0.0132	0.003
1ST QUANTILE	0.166	0.190	0.078	0.120	0.015	0.0112	0.003
2ND QUANTILE	0.182	0.217	0.111	0.166	0.025	0.0138	0.003
3RD QUANTILE	0.256	0.268	0.259	0.220	0.038	0.0153	0.004
MISSING VALUES	0	0	0	0	0	0	0
	NICKEL UG/M3	VANADIUM UG/M3	ZINC UG/M3	CADMIUM UG/M3	SULFATE NYL UG/M3	TOTAL SULFUR UG/M**3	TOTAL N NITRATE UG/M**3
# OF SAMPLES	13	13	13	13	13	13.00	13.00
MAXIMUM	0.01367	0.0075	0.0565	0.01682	2.9118	21.73	1.93
MINIMUM	0.00059	0.0014	0.0214	0.00056	0.3134	5.14	0.99
ARITH. MEAN	0.00297	0.0027	0.0816	0.00388	1.3511	9.43	1.42
ARITH. STD. DEV	0.00334	0.0016	0.0096	0.00561	0.8433	4.25	0.26
GEOM. MEAN	0.00218	0.0024	0.0405	0.00179	1.0991	8.79	1.40
1ST QUANTILE	0.00140	0.0017	0.0345	0.00061	0.5638	6.63	1.26
2ND QUANTILE	0.00203	0.0024	0.0416	0.00109	1.1083	8.36	1.44
3RD QUANTILE	0.00303	0.0031	0.0490	0.00555	2.0740	10.61	1.57
MISSING VALUES	0	0	0	0	0	0.00	0.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APTOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION

STATION-DALHOUSIE MILLS LOWEL SITE NO.1

CARLISLE HILLS LOVEL SITE NO.1														
# OF SAMPLES	SULFUR DIOX		SULFATE		NITRIC		NITRATE		CALCIUM		CHLORIDE		POTASSIUM	
	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11
MAXIMUM		5.49		6.17		0.173		1.110		1.632		0.985		6.117
MINIMUM		1.43		2.54		0.036		0.191		0.092		0.245		0.074
ARITH. MEAN		3.15		3.99		0.109		0.559		0.834		0.470		0.733
ARITH. STD. DEV		1.45		1.30		0.044		0.285		0.449		0.240		1.892
GEOM. MEAN		2.84		3.82		0.100		0.494		0.679		0.426		0.190
1ST QUANTILE		1.68		2.99		0.078		0.331		0.553		0.307		0.110
2ND QUANTILE		3.32		3.55		0.108		0.506		0.798		0.386		0.135
3RD QUANTILE		4.35		5.50		0.147		0.743		1.201		0.600		0.178
MISSING VALUES		1		1		1		1		1		1		1
# OF SAMPLES	SODIUM		IRON		ALUMINIUM		MAGNESIUM		LEAD		MANGANESE		COOPER	
	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11
MAXIMUM		0.606		0.272		0.373		0.159		0.036		0.0411		0.006
MINIMUM		0.112		0.038		0.027		0.003		0.009		0.0044		0.002
ARITH. MEAN		0.286		0.135		0.110		0.080		0.021		0.0216		0.003
ARITH. STD. DEV		0.161		0.082		0.076		0.048		0.009		0.0115		0.001
GEOM. MEAN		0.251		0.111		0.076		0.057		0.019		0.0181		0.003
1ST QUANTILE		0.167		0.066		0.035		0.047		0.014		0.0107		0.002
2ND QUANTILE		0.236		0.113		0.060		0.080		0.020		0.0240		0.003
3RD QUANTILE		0.442		0.196		0.147		0.107		0.028		0.0294		0.004
MISSING VALUES		1		1		1		1		1		1		1
# OF SAMPLES	NICKEL		VANADIUM		ZINC		CADMIUM		SULFATE NYL		TOTAL SULFUR		TOTAL N	
	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11
MAXIMUM		0.00422		0.0037		0.0454		0.00396		1.1537		11.00		11.00
MINIMUM		0.00024		0.0006		0.0081		0.00032		0.4809		4.65		1.25
ARITH. MEAN		0.00177		0.0020		0.0260		0.00122		0.8018		1.79		0.27
ARITH. STD. DEV		0.00112		0.0009		0.0119		0.00121		0.2539		2.91		0.67
GEOM. MEAN		0.00143		0.00231		0.0231		0.00084		0.6629		0.80		0.30
1ST QUANTILE		0.00108		0.0012		0.0146		0.00042		0.5866		2.61		0.61
2ND QUANTILE		0.00148		0.0021		0.0276		0.00064		0.8666		2.45		0.43
3RD QUANTILE		0.00240		0.0025		0.0362		0.00225		0.9742		2.88		0.63
MISSING VALUES		1		1		1		1		1.1353		3.14		0.88
												1.00		1.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APTOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION-DORION LOWEL SITE NO.1

	SULFUR DIOX	SULFATE	NITRIC	NITRATE	CALCIUM	CHLORIDE	POTASSIUM
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	1.78	2.27	0.117	0.228	0.638	0.389	0.713
MINIMUM	0.39	0.39	0.000	0.034	0.026	0.087	0.001
ARITH. MEAN	0.65	1.13	0.037	0.092	0.229	0.143	0.120
ARITH. STD. DEV	0.46	0.66	0.034	0.068	0.199	0.079	0.191
GEOM. MEAN	0.53	0.96	0.042	0.074	0.153	0.131	0.048
1ST QUANTILE	0.30	0.59	0.010	0.044	0.075	0.098	0.022
2ND QUANTILE	0.53	0.91	0.031	0.062	0.130	0.124	0.045
3RD QUANTILE	1.01	1.82	0.049	0.132	0.365	0.146	0.118
MISSING VALUES	0	0	0	0	0	0	0
	SODIUM	IRON	ALUMINIUM	MAGNESIUM	LEAD	MANGANESE	COPPER
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	1.216	0.152	0.361	0.223	0.018	0.0055	0.030
MINIMUM	0.062	0.003	0.008	0.006	0.001	0.0006	0.001
ARITH. MEAN	0.195	0.071	0.104	0.095	0.007	0.0031	0.004
ARITH. STD. DEV	0.312	0.043	0.112	0.068	0.006	0.0017	0.008
GEOM. MEAN	0.122	0.053	0.053	0.064	0.004	0.0025	0.002
1ST QUANTILE	0.070	0.042	0.015	0.030	0.002	0.0014	0.001
2ND QUANTILE	0.107	0.061	0.081	0.084	0.006	0.0039	0.001
3RD QUANTILE	0.133	0.101	0.159	0.151	0.012	0.0046	0.002
MISSING VALUES	0	0	0	0	0	0	0
	NICKEL	VANADIUM	ZINC	CADMIUM	SULFATE NYL	TOTAL SULFUR	TOTAL N
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M**3	NITRATE
# OF SAMPLES	13	13	13	13	13	13.00	UG/M**3
MAXIMUM	0.00316	0.0014	0.0078	0.01685	1.1386	1.59	13.00
MINIMUM	0.00013	0.0002	0.0006	0.00005	0.0000	0.26	0.35
ARITH. MEAN	0.00129	0.0006	0.0034	0.00324	0.4736	0.70	0.04
ARITH. STD. DEV	0.00097	0.0003	0.00036	0.00566	0.3187	0.41	0.13
GEOM. MEAN	0.00093	0.0005	0.0023	0.00065	0.4204	0.61	0.08
1ST QUANTILE	0.00051	0.0003	0.0007	0.00022	0.2784	0.39	0.11
2ND QUANTILE	0.00095	0.0005	0.0032	0.00034	0.4458	0.62	0.07
3RD QUANTILE	0.00220	0.0007	0.0059	0.00563	0.6226	0.96	0.09
MISSING VALUES	0	0	0	0	0	0.00	0.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION-DORSET LOVEL SITE NO.1

	SULFUR DIOX UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	CALCIUM UG/M3	CHLORIDE UG/M3	POTASSIUM UG/M3
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	7.05	5.21	0.379	0.348	0.562	0.401	0.561
MINIMUM	1.00	1.19	0.065	0.083	0.054	0.080	0.014
ARITH. MEAN	3.25	3.12	0.151	0.216	0.241	0.173	0.086
ARITH. STD. DEV	1.59	1.28	0.079	0.072	0.145	0.080	0.144
GEOM. MEAN	2.86	2.86	0.136	0.203	0.203	0.161	0.052
1ST QUANTILE	2.13	2.01	0.111	0.171	0.131	0.135	0.033
2ND QUANTILE	3.48	3.38	0.154	0.217	0.215	0.147	0.044
3RD QUANTILE	4.00	4.16	0.156	0.278	0.283	0.189	0.068
MISSING VALUES	0	0	0	0	0	0	0
	SODIUM UG/M3	IRON UG/M3	ALUMINIUM UG/M3	MAGNESIUM UG/M3	LEAD UG/M3	MANGANESE UG/M3	COPPER UG/M3
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	0.286	0.269	0.277	0.151	0.037	0.0088	0.006
MINIMUM	0.084	0.025	0.003	0.006	0.001	0.0010	0.001
ARITH. MEAN	0.144	0.100	0.100	0.047	0.009	0.0039	0.003
ARITH. STD. DEV	0.132	0.076	0.094	0.039	0.009	0.0020	0.002
GEOM. MEAN	0.089	0.050	0.050	0.035	0.006	0.0034	0.002
1ST QUANTILE	0.057	0.012	0.012	0.019	0.004	0.0023	0.002
2ND QUANTILE	0.122	0.057	0.067	0.040	0.008	0.0037	0.003
3RD QUANTILE	0.178	0.170	0.183	0.066	0.010	0.0051	0.004
MISSING VALUES	0	0	0	0	0	0	0
	NICKEL UG/M3	VANADIUM UG/M3	ZINC UG/M3	CADMIUM UG/M3	SULFATE NYL UG/M3	TOTAL SULFUR UG/M**3	TOTAL N NITRATE UG/M**3
# OF SAMPLES	13	13	13	13	13	13.00	13.00
MAXIMUM	0.01028	0.0017	0.0250	0.01362	2.8471	4.65	0.73
MINIMUM	0.00012	0.0002	0.0036	0.00014	0.7458	1.63	0.19
ARITH. MEAN	0.00241	0.0007	0.0112	0.00267	1.2376	2.66	0.37
ARITH. STD. DEV	0.00269	0.0004	0.0066	0.00476	0.5777	0.78	0.14
GEOM. MEAN	0.00126	0.0007	0.0096	0.00087	1.1476	2.57	0.35
1ST QUANTILE	0.00027	0.0005	0.0062	0.00033	0.8519	2.15	0.28
2ND QUANTILE	0.00225	0.0006	0.0100	0.00058	1.0938	2.74	0.34
3RD QUANTILE	0.00295	0.0009	0.0134	0.00214	1.3446	2.83	0.42
MISSING VALUES	0	0	0	0	0	0.00	0.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION-EAR FALLS LOVEL SITE NO.1

	SULFUR DIOX UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	CALCIUM UG/M3	CHLORIDE UG/M3	POTASSIUM UG/M3
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	1.59	2.22	0.095	0.195	0.367	0.451	0.168
MINIMUM	0.25	0.50	0.006	0.036	0.025	0.082	0.009
ARITH. MEAN	0.60	0.98	0.043	0.079	0.156	0.174	0.063
ARITH. STD. DEV	0.41	0.54	0.028	0.049	0.109	0.102	0.047
GEOM. MEAN	0.49	0.88	0.035	0.069	0.122	0.154	0.048
1ST QUANTILE	0.27	0.60	0.025	0.047	0.084	0.101	0.025
2ND QUANTILE	0.51	0.80	0.035	0.063	0.106	0.146	0.060
3RD QUANTILE	0.81	1.16	0.066	0.096	0.266	0.222	0.087
MISSING VALUES	1	1	1	1	1	1	1
	SODIUM	IRON	ALUMINIUM	MAGNESIUM	LEAD	MANGANESE	COPPER
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	0.303	0.193	0.203	0.071	0.015	0.0065	0.004
MINIMUM	0.069	0.022	0.010	0.006	0.001	0.0010	0.000
ARITH. MEAN	0.123	0.0713	0.065	0.041	0.006	0.0029	0.001
ARITH. STD. DEV	0.069	0.052	0.039	0.022	0.004	0.0016	0.001
GEOM. MEAN	0.111	0.059	0.046	0.034	0.004	0.0025	0.001
1ST QUANTILE	0.087	0.032	0.032	0.020	0.003	0.0015	0.000
2ND QUANTILE	0.091	0.052	0.037	0.041	0.006	0.0025	0.001
3RD QUANTILE	0.125	0.113	0.093	0.063	0.007	0.0041	0.001
MISSING VALUES	1	2	1	1	1	1	1
	NICKEL	VANADIUM	ZINC	CADMIUM	SULFATE NYL	TOTAL SULFUR UG/M**3	TOTAL N NITRATE UG/M**3
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M**3	UG/M**3
# OF SAMPLES	13	13	13	13	13	13.00	13.00
MAXIMUM	0.03632	0.0010	0.0046	0.01094	1.0529	1.54	0.27
MINIMUM	0.00037	0.0002	0.0006	0.00017	0.1775	0.29	0.06
ARITH. MEAN	0.00455	0.0005	0.0026	0.00272	0.4437	0.63	0.12
ARITH. STD. DEV	0.01017	0.0002	0.0015	0.00419	0.2433	0.35	0.07
GEOM. MEAN	0.00145	0.0004	0.0020	0.00076	0.3937	0.56	0.11
1ST QUANTILE	0.00056	0.0002	0.0009	0.00023	0.2615	0.39	0.08
2ND QUANTILE	0.00094	0.0004	0.0027	0.00031	0.3482	0.52	0.09
3RD QUANTILE	0.00301	0.0006	0.0039	0.00642	0.5594	0.75	0.17
MISSING VALUES	1	1	1	1	1	1.00	1.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION-GERALDTON LOWEL SITE NO.1

# OF SAMPLES	SULFUR DIOX		SULFATE		NITRIC		NITRATE		CALCIUM		CHLORIDE		POTASSIUM	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13
MAXIMUM	:	2.48	:	2.01	:	0.146	:	0.228	:	0.628	:	0.245	:	0.387
MINIMUM	:	0.00	:	0.02	:	0.000	:	0.006	:	0.012	:	0.059	:	0.000
ARITH. MEAN	:	0.63	:	0.86	:	0.033	:	0.069	:	0.209	:	0.111	:	0.062
ARITH. STD. DEV	:	0.71	:	0.67	:	0.038	:	0.065	:	0.186	:	0.046	:	0.036
GEOM. MEAN	:	0.54	:	0.46	:	0.027	:	0.047	:	0.115	:	0.105	:	0.031
1ST QUANTILE	:	0.22	:	0.21	:	0.007	:	0.027	:	0.050	:	0.084	:	0.011
2ND QUANTILE	:	0.38	:	0.82	:	0.028	:	0.049	:	0.256	:	0.099	:	0.035
3RD QUANTILE	:	0.80	:	1.48	:	0.043	:	0.093	:	0.527	:	0.124	:	0.064
MISSING VALUES	:	0	:	0	:	0	:	0	:	0	:	0	:	0
# OF SAMPLES	SODIUM		IRON		ALUMINUM		MAGNESIUM		LEAD		MANGANESE		COPPER	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13
MAXIMUM	:	0.234	:	0.151	:	0.150	:	0.104	:	0.011	:	0.0060	:	0.010
MINIMUM	:	0.032	:	0.003	:	0.003	:	0.003	:	0.001	:	0.0006	:	0.000
ARITH. MEAN	:	0.029	:	0.047	:	0.043	:	0.040	:	0.004	:	0.0019	:	0.002
ARITH. STD. DEV	:	0.053	:	0.044	:	0.046	:	0.034	:	0.004	:	0.0018	:	0.004
GEOM. MEAN	:	0.068	:	0.036	:	0.024	:	0.025	:	0.003	:	0.0013	:	0.001
1ST QUANTILE	:	0.042	:	0.014	:	0.010	:	0.009	:	0.001	:	0.0006	:	0.000
2ND QUANTILE	:	0.062	:	0.032	:	0.022	:	0.042	:	0.003	:	0.0010	:	0.001
3RD QUANTILE	:	0.112	:	0.070	:	0.078	:	0.067	:	0.007	:	0.0030	:	0.002
MISSING VALUES	:	0	:	0	:	0	:	0	:	0	:	0	:	0
# OF SAMPLES	NICKEL		VANADIUM		ZINC		CADMIUM		SULFATE NYL		TOTAL SULFUR		TOTAL NITRATE	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13
MAXIMUM	:	0.00296	:	0.0012	:	0.0055	:	0.01258	:	1.4028	:	1.91	:	13.00
MINIMUM	:	0.00023	:	0.0002	:	0.0006	:	0.00008	:	0.0000	:	0.01	:	0.37
ARITH. MEAN	:	0.00135	:	0.0006	:	0.0024	:	0.00275	:	0.4349	:	0.60	:	0.10
ARITH. STD. DEV	:	0.00084	:	0.0004	:	0.0018	:	0.00056	:	0.3711	:	0.56	:	0.10
GEOM. MEAN	:	0.00108	:	0.0005	:	0.0018	:	0.00016	:	0.3550	:	0.29	:	0.07
1ST QUANTILE	:	0.00071	:	0.0003	:	0.0007	:	0.00016	:	0.1440	:	0.18	:	0.05
2ND QUANTILE	:	0.00119	:	0.0005	:	0.0020	:	0.00027	:	0.4236	:	0.82	:	0.08
3RD QUANTILE	:	0.00208	:	0.0009	:	0.0040	:	0.00470	:	0.4899	:	0.00	:	0.12
MISSING VALUES	:	0	:	0	:	0	:	0	:	0	:	0.00	:	0.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION=GOACANDA LOVEL SITE No.1

	SULFUR DIOX UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	CALCIUM UG/M3	CHLORIDE UG/M3	POTASSIUM UG/M3
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	6.37	4.01	0.152	0.188	0.359	0.390	0.107
MINIMUM	1.07	0.43	0.044	0.056	0.022	0.109	0.010
ARITH. MEAN	3.70	1.95	0.087	0.128	0.129	0.203	0.048
ARITH. STD. DEV	1.50	0.93	0.037	0.040	0.095	0.089	0.029
GEOM. MEAN	3.35	1.72	0.081	0.122	0.103	0.187	0.040
1ST QUARTILE	2.67	1.56	0.062	0.105	0.070	0.121	0.029
2ND QUARTILE	3.78	1.77	0.073	0.118	0.099	0.207	0.043
3RD QUARTILE	4.65	2.29	0.120	0.164	0.164	0.251	0.068
MISSING VALUES	1	1	1	1	1	1	1
	SODIUM UG/M3	IRON UG/M3	ALUMINIUM UG/M3	MAGNESIUM UG/M3	LEAD UG/M3	MANGANESE UG/M3	COPPER UG/M3
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	0.295	0.179	0.254	0.087	0.015	0.0065	0.008
MINIMUM	0.067	0.005	0.003	0.003	0.001	0.0014	0.001
ARITH. MEAN	0.162	0.082	0.095	0.044	0.006	0.0033	0.004
ARITH. STD. DEV	0.079	0.074	0.094	0.030	0.004	0.0018	0.002
GEOM. MEAN	0.145	0.046	0.049	0.032	0.005	0.0029	0.004
1ST QUARTILE	0.109	0.015	0.019	0.021	0.003	0.0018	0.002
2ND QUARTILE	0.141	0.043	0.043	0.035	0.006	0.0029	0.005
3RD QUARTILE	0.244	0.172	0.185	0.078	0.008	0.0045	0.006
MISSING VALUES	1	1	1	1	1	1	1
	NICKEL UG/M3	VARADIUM UG/M3	ZINC UG/M3	CADMIUM UG/M3	SULFATE NYL UG/M3	TOTAL SULFUR UG/M ² *3	TOTAL N NITRATE UG/M ² *3
# OF SAMPLES	11	11	11	11	11	11.00	11.00
MAXIMUM	0.01351	0.0017	0.0185	0.01930	1.9927	3.74	0.34
MINIMUM	0.00013	0.0002	0.0037	0.00006	0.2945	1.38	0.13
ARITH. MEAN	0.00283	0.0008	0.0091	0.00303	0.9640	2.50	0.22
ARITH. STD. DEV	0.00399	0.0005	0.0050	0.00616	0.4921	0.70	0.07
GEOM. MEAN	0.00134	0.0006	0.0078	0.00065	0.8450	2.40	0.21
1ST QUARTILE	0.00048	0.0003	0.0042	0.00022	0.5108	2.01	0.16
2ND QUARTILE	0.00150	0.0006	0.0089	0.00041	0.9539	2.49	0.19
3RD QUARTILE	0.00347	0.0013	0.0129	0.00284	1.2222	2.93	0.27
MISSING VALUES	1	1	1	1	1	1.00	1.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 ARIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION-KILLARNEY LOVEL SITE NO.1

	SULFUR DIOX UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	CALCIUM UG/M3	CHLORIDE UG/M3	POTASSIUM UG/M3
# OF SAMPLES	14	14	14	14	14	14	14
MAXIMUM	12.10	4.30	0.249	0.370	0.474	0.334	0.139
MINIMUM	1.52	1.38	0.039	0.123	0.027	0.099	0.021
ARITH. MEAN	5.67	2.64	0.121	0.247	0.192	0.219	0.055
ARITH. STD. DEV	3.67	0.94	0.058	0.085	0.127	0.064	0.029
GEOM. MEAN	4.57	2.49	0.108	0.232	0.151	0.210	0.050
1ST QUARTILE	2.17	1.89	0.080	0.182	0.085	0.185	0.033
2ND QUARTILE	4.69	2.50	0.118	0.245	0.182	0.211	0.052
3RD QUARTILE	8.85	3.55	0.146	0.334	0.256	0.256	0.065
MISSING VALUES	0	0	0	0	0	0	0
	SODIUM	IRON	ALUMINIUM	MAGNESIUM	LEAD	MANGANESE	COPPER
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	14	14	14	14	14	14	14
MAXIMUM	0.237	0.155	0.187	0.070	0.019	0.0061	0.008
MINIMUM	0.084	0.025	0.028	0.011	0.002	0.0020	0.002
ARITH. MEAN	0.118	0.080	0.092	0.047	0.009	0.0039	0.005
ARITH. STD. DEV	0.041	0.043	0.048	0.019	0.005	0.0012	0.002
GEOM. MEAN	0.113	0.069	0.078	0.042	0.007	0.0037	0.004
1ST QUARTILE	0.089	0.046	0.038	0.029	0.004	0.0029	0.003
2ND QUARTILE	0.106	0.072	0.105	0.048	0.008	0.0042	0.005
3RD QUARTILE	0.130	0.113	0.126	0.064	0.012	0.0047	0.007
MISSING VALUES	0	0	0	0	0	0	0
	NICKEL	VANADIUM	ZINC	CADMIUM	SULFATE NYI	TOTAL SULFUR UG/M**3	TOTAL N NITRATE UG/M**3
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M**3	UG/M**3
# OF SAMPLES	14	14	14	14	14	14.00	14.00
MAXIMUM	0.00953	0.0064	0.0239	0.01171	1.3634	7.27	0.58
MINIMUM	0.00052	0.0002	0.0023	0.00003	0.2811	1.22	0.17
ARITH. MEAN	0.00270	0.0012	0.0106	0.00263	0.7703	3.71	0.37
ARITH. STD. DEV	0.00225	0.0016	0.0067	0.00412	0.3510	1.85	0.13
GEOM. MEAN	0.00213	0.0008	0.0087	0.00081	0.6880	3.30	0.35
1ST QUARTILE	0.00150	0.0004	0.0047	0.00040	0.4622	2.25	0.26
2ND QUARTILE	0.00192	0.0008	0.0096	0.00061	0.8139	3.14	0.34
3RD QUARTILE	0.00347	0.0012	0.0141	0.00346	1.0223	5.25	0.47
MISSING VALUES	0	0	0	0	0	0.00	0.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION-WATKINS LOVEL SITE NO.1

	SULFUR DIOXIDE	SULFATE	NITRIC	NITRATE	CADMIUM	CHLORIDE	POTASSIUM
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	10.91	5.22	0.153	0.211	0.623	0.501	0.191
MINIMUM	0.76	1.63	0.028	0.050	0.057	0.132	0.044
ARITH. MEAN	3.60	2.67	0.073	0.128	0.287	0.286	0.098
ARITH. STD. DEV	2.92	1.08	0.031	0.046	0.208	0.166	0.038
GEOM. MEAN	2.75	2.49	0.067	0.120	0.215	0.218	0.070
1ST QUANTILE	1.84	1.78	0.054	0.097	0.135	0.138	0.054
2ND QUANTILE	2.19	2.26	0.067	0.125	0.218	0.278	0.092
3RD QUANTILE	5.52	3.18	0.087	0.160	0.476	0.326	0.129
MISSING VALUES	0	0	0	0	0	0	0
	SODIUM	IRON	ALUMINIUM	MAGNESIUM	LEAD	MANGANESE	COPPER
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	0.312	1.580	2.590	3.625	0.014	0.0367	0.026
MINIMUM	0.126	0.054	0.027	0.027	0.003	0.0036	0.002
ARITH. MEAN	0.169	0.219	0.777	0.268	0.009	0.0167	0.005
ARITH. STD. DEV	0.050	0.311	0.818	0.211	0.003	0.0111	0.006
GEOM. MEAN	0.164	0.285	0.368	0.190	0.008	0.0133	0.004
1ST QUANTILE	0.139	0.495	0.134	0.106	0.006	0.0077	0.003
2ND QUANTILE	0.150	0.800	0.415	0.201	0.008	0.0133	0.004
3RD QUANTILE	0.188	0.898	1.419	0.495	0.011	0.0259	0.005
MISSING VALUES	0	0	0	0	0	0	0
	NICKEL	VANADIUM	ZINC	CADMIUM	SULFATE NYL	TOTAL SULFUR	TOTAL NITRATE
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	13	13	13	13	13	13.00	13.00
MAXIMUM	0.00783	0.0029	0.1599	0.01703	1.1356	6.33	0.34
MINIMUM	0.00016	0.0003	0.0058	0.00007	0.4225	1.09	0.10
ARITH. MEAN	0.00245	0.0011	0.0278	0.00312	0.7374	2.69	0.20
ARITH. STD. DEV	0.00194	0.0011	0.0404	0.00529	0.2405	1.42	0.07
GEOM. MEAN	0.00180	0.0008	0.0181	0.00081	0.7023	2.41	0.19
1ST QUANTILE	0.00121	0.0004	0.0121	0.00029	0.5376	1.62	0.16
2ND QUANTILE	0.00190	0.0008	0.0152	0.00052	0.7015	2.35	0.18
3RD QUANTILE	0.00319	0.0018	0.0249	0.00476	0.9429	3.41	0.24
MISSING VALUES	0	0	0	0	0	0.00	0.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APFOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION=MCCELLAR LOVEL SITE NO.1

	SULFUR DIOX		SULFATE		NITRIC		NITRATE		CALCIUM		CHLORIDE		POTASSIUM	
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	11		11		11		11		11		11		11	
MAXIMUM	9.68		6.08		0.264		0.381		0.522		0.510		0.120	
MINIMUM	1.19		2.22		0.050		0.073		0.090		0.181		0.036	
ARITH. MEAN	4.07		3.31		0.140		0.237		0.234		0.288		0.065	
ARITH. STD. DEV	2.82		1.25		0.054		0.079		0.135		0.110		0.026	
GEOM. MEAN	3.30		3.12		0.130		0.221		0.202		0.273		0.061	
1ST QUANTILE	1.70		2.28		0.109		0.215		0.113		0.228		0.049	
2ND QUANTILE	3.60		2.91		0.135		0.220		0.203		0.265		0.057	
3RD QUANTILE	5.96		4.32		0.159		0.283		0.325		0.306		0.077	
MISSING VALUES	0		0		0		0		0		0		0	
	SODIUM		IRON		ALUMINIUM		MAGNESIUM		LEAD		MANGANESE		COPPER	
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	11		11		11		11		11		11		11	
MAXIMUM	0.534		0.175		0.228		0.067		0.014		0.0074		0.005	
MINIMUM	0.095		0.008		0.016		0.019		0.003		0.0023		0.001	
ARITH. MEAN	0.203		0.087		0.088		0.044		0.009		0.0041		0.003	
ARITH. STD. DEV	0.157		0.049		0.063		0.017		0.004		0.0014		0.002	
GEOM. MEAN	0.169		0.070		0.069		0.041		0.008		0.0039		0.002	
1ST QUANTILE	0.116		0.047		0.043		0.026		0.004		0.0032		0.001	
2ND QUANTILE	0.136		0.078		0.073		0.046		0.009		0.0038		0.003	
3RD QUANTILE	0.165		0.133		0.136		0.064		0.013		0.0050		0.004	
MISSING VALUES	0		0		0		0		0		0		0	
	NICKEL		VANADIUM		ZINC		CADMIUM		SULFATE NYL		TOTAL SULFUR		TOTAL N	
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	11		11		11		11		11		11		11	
MAXIMUM	0.01109		0.0016		0.0154		0.01494		1.5167		5.81		11.00	
MINIMUM	0.00037		0.0005		0.00052		0.00003		0.3173		1.88		0.65	
ARITH. MEAN	0.00309		0.0009		0.0104		0.00247		0.9984		3.14		0.18	
ARITH. STD. DEV	0.00367		0.0003		0.0033		0.00489		0.3435		1.31		0.12	
GEOM. MEAN	0.00182		0.0009		0.0099		0.00053		0.9309		2.92		0.36	
1ST QUANTILE	0.00077		0.0007		0.0077		0.00025		0.8385		2.22		0.26	
2ND QUANTILE	0.00148		0.0008		0.0108		0.00042		0.9929		2.60		0.38	
3RD QUANTILE	0.00316		0.0010		0.0130		0.00070		1.1882		3.83		0.43	
MISSING VALUES	0		0		0		0		0		0.00		0.00	

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION-MOONBEAM LOVEL SITE NO.1

	SULFUR-DIOX UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	CALCIUM UG/M3	CHLORIDE UG/M3	POTASSIUM UG/M3
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	1.90	2.16	0.054	0.131	0.988	0.388	0.084
MINIMUM	0.54	0.97	0.016	0.043	0.060	0.102	0.013
ARITH. MEAN	1.11	1.48	0.028	0.074	0.475	0.179	0.044
ARITH. STD. DEV	0.50	0.40	0.013	0.027	0.327	0.075	0.023
GEOM. MEAN	1.00	1.43	0.026	0.069	0.349	0.169	0.039
1ST QUARTILE	0.55	1.10	0.018	0.046	0.203	0.134	0.024
2ND QUARTILE	1.12	1.43	0.023	0.066	0.410	0.171	0.037
3RD QUARTILE	1.57	1.77	0.036	0.100	0.754	0.186	0.062
MISSING VALUES	0	0	0	0	0	0	0
		IRON	ALUMINIUM	MAGNESIUM	LEAD	MANGANESE	COPPER
		UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	11	11	11	11	11	11	11
MAXIMUM	0.356	0.186	0.294	0.195	0.023	0.0076	0.004
MINIMUM	0.088	0.005	0.027	0.023	0.001	0.0009	0.000
ARITH. MEAN	0.131	0.097	0.130	0.101	0.007	0.0040	0.002
ARITH. STD. DEV	0.077	0.064	0.097	0.056	0.007	0.0020	0.001
GEOM. MEAN	0.119	0.067	0.097	0.086	0.005	0.0034	0.002
1ST QUARTILE	0.094	0.038	0.040	0.057	0.003	0.0032	0.002
2ND QUARTILE	0.108	0.098	0.110	0.090	0.004	0.0036	0.002
3RD QUARTILE	0.116	0.163	0.207	0.154	0.012	0.0053	0.003
MISSING VALUES	0	0	0	0	0	0	0
		NICKEL	ZINC	CADMIUM	SULFATE NYL	TOTAL SULFUR UG/M**3	TOTAL N NITRATE UG/M**3
		UG/M3	UG/M3	UG/M3	UG/M3	UG/M**3	UG/M**3
# OF SAMPLES	11	11	11	11	11	11.00	11.00
MAXIMUM	0.00896	0.0054	0.0357	0.01581	0.8675	1.53	0.16
MINIMUM	0.00013	0.0002	0.0012	0.00004	0.2678	0.59	0.06
ARITH. MEAN	0.00158	0.0010	0.0019	0.00257	0.6072	1.05	0.10
ARITH. STD. DEV	0.00235	0.0015	0.0095	0.00533	0.1636	0.32	0.03
GEOM. MEAN	0.00076	0.0005	0.0047	0.00042	0.5831	1.00	0.10
1ST QUARTILE	0.0003	0.0003	0.0023	0.00018	0.5319	0.75	0.08
2ND QUARTILE	0.00066	0.0004	0.0035	0.00027	0.5835	1.12	0.09
3RD QUARTILE	0.00144	0.0009	0.0067	0.00058	0.7421	1.31	0.12
MISSING VALUES	0	0	0	0	0	0.00	0.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION-MOOSONEE LOWEL SITE NO. 1

	SULFUR DIOX UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	CALCIUM UG/M3	CHLORIDE UG/M3	POTASSIUM UG/M3
# OF SAMPLES	9	9	9	9	9	9	9
MAXIMUM	1.25	3.50	0.29	0.114	1.591	0.561	0.068
MINIMUM	0.19	0.54	0.013	0.000	0.023	0.182	0.009
ARITH. MEAN	0.57	1.12	0.020	0.034	0.443	0.297	0.035
ARITH. STD. DEV	0.33	0.93	0.006	0.034	0.532	0.119	0.021
GEOM. MEAN	0.50	0.93	0.019	0.038	0.216	0.279	0.028
1ST QUANTILE	0.34	0.60	0.015	0.010	0.086	0.196	0.015
2ND QUANTILE	0.47	0.83	0.016	0.031	0.179	0.287	0.031
3RD QUANTILE	0.77	1.17	0.026	0.042	0.830	0.351	0.055
MISSING VALUES	0	0	0	0	0	0	1
	SODIUM UG/M3	IRON UG/M3	ALUMINUM UG/M3	MAGNESIUM UG/M3	LEAD UG/M3	MANGANESE UG/M3	COPPER UG/M3
# OF SAMPLES	9	9	9	9	9	9	9
MAXIMUM	0.432	0.079	0.120	0.209	0.018	0.0030	0.006
MINIMUM	0.155	0.005	0.010	0.031	0.001	0.0006	0.001
ARITH. MEAN	0.210	0.037	0.042	0.077	0.004	0.0013	0.002
ARITH. STD. DEV	0.087	0.025	0.038	0.058	0.006	0.0009	0.002
GEOM. MEAN	0.199	0.027	0.030	0.063	0.002	0.0011	0.001
1ST QUANTILE	0.161	0.014	0.015	0.036	0.001	0.0007	0.001
2ND QUANTILE	0.178	0.033	0.026	0.051	0.003	0.0010	0.001
3RD QUANTILE	0.226	0.057	0.072	0.109	0.005	0.0020	0.002
MISSING VALUES	0	0	0	0	0	0	0
	NICKEL UG/M3	VANADIUM UG/M3	ZINC UG/M3	CADMIUM UG/M3	SULFATE NYL UG/M3	TOTAL SULFUR UG/M*3	TOTAL N NITRATE UG/M*3
# OF SAMPLES	9	9	9	9	9	9.00	9.00
MAXIMUM	0.02766	0.0023	0.0329	0.01349	0.5882	1.44	0.14
MINIMUM	0.00012	0.0002	0.0006	0.00002	0.2111	0.30	0.01
ARITH. MEAN	0.00512	0.0010	0.0081	0.000390	0.4444	0.66	0.05
ARITH. STD. DEV	0.00897	0.0008	0.0112	0.000558	0.1132	0.38	0.04
GEOM. MEAN	0.00144	0.0007	0.0036	0.00069	0.4284	0.58	0.04
1ST QUANTILE	0.00046	0.0003	0.0012	0.00017	0.3852	0.37	0.03
2ND QUANTILE	0.00091	0.0007	0.0026	0.00029	0.4682	0.51	0.05
3RD QUANTILE	0.00724	0.0020	0.0134	0.00985	0.5348	0.92	0.07
MISSING VALUES	0	0	0	0	0	0.00	0.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION=PALMERSTON LOWEL SITE NO. 1

	SULFUR DIOX	SULFATE	NITRIC	NITRATE	CALCIUM	CHLORIDE	POTASSIUM
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	12	12	12	12	12	12	12
MAXIMUM	16.09	8.35	0.312	1.599	1.996	0.887	0.212
MINIMUM	3.77	3.07	0.084	0.613	0.318	0.329	0.043
ARITH. MEAN	7.49	4.78	0.173	1.038	0.749	0.527	0.096
ARITH. STD. DEV	1.79	1.79	0.074	0.311	0.489	0.159	0.054
GEOM. MEAN	6.60	4.53	0.159	0.996	0.638	0.507	0.085
1ST QUANTILE	4.49	3.37	0.107	0.814	0.347	0.395	0.056
2ND QUANTILE	5.42	4.38	0.172	1.071	0.613	0.523	0.076
3RD QUANTILE	12.72	6.17	0.232	1.268	0.957	0.648	0.114
MISSING VALUES	1	1	1	1	1	1	1
	SODIUM	IRON	ALUMINUM	MAGNESIUM	LEAD	MANGANESE	COPPER
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	12	12	12	12	12	12	12
MAXIMUM	0.357	0.388	0.401	0.499	0.037	0.0169	0.004
MINIMUM	0.091	0.050	0.006	0.077	0.002	0.0040	0.001
ARITH. MEAN	0.184	0.148	0.112	0.208	0.022	0.0082	0.003
ARITH. STD. DEV	0.080	0.094	0.118	0.132	0.013	0.0039	0.001
GEOM. MEAN	0.170	0.128	0.069	0.175	0.017	0.0075	0.003
1ST QUANTILE	0.121	0.090	0.037	0.103	0.009	0.0047	0.002
2ND QUANTILE	0.153	0.121	0.061	0.166	0.021	0.0082	0.003
3RD QUANTILE	0.214	0.200	0.153	0.303	0.036	0.0112	0.003
MISSING VALUES	1	1	1	1	1	1	1
	NICKEL	VANADIUM	ZINC	CADMIUM	SULFATE NYL	TOTAL SULFUR	TOTAL N
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M**3	UG/M**3
# OF SAMPLES	12	12	12	12	12	12.00	12.00
MAXIMUM	0.00774	0.0021	0.0303	0.01970	3.4699	9.68	1.87
MINIMUM	0.00032	0.0005	0.0131	0.00022	0.4686	3.15	0.74
ARITH. MEAN	0.00207	0.0014	0.0221	0.00390	1.4202	5.34	1.21
ARITH. STD. DEV	0.00212	0.0004	0.0058	0.00615	0.9083	2.17	0.34
GEOM. MEAN	0.00143	0.0014	0.0214	0.00127	1.1832	4.98	1.17
1ST QUANTILE	0.00077	0.0012	0.0172	0.00041	0.6871	3.38	0.92
2ND QUANTILE	0.00147	0.0015	0.0223	0.00073	1.2805	4.70	1.20
3RD QUANTILE	0.00234	0.0017	0.0282	0.00855	2.0167	7.54	1.36
MISSING VALUES	1	1	1	1	1	1.00	1.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION=PICKLE LAKE LOVEL SITE NO.1

STATION=PECKICK LAKE LOVEL SITE NO.1														
	SULFUR DIOX		SULFATE		NITRIC		NITRATE		CALCIUM		CHLORIDE		POTASSIUM	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13
# OF SAMPLES	:	13	:	13	:	13	:	13	:	13	:	13	:	13
MAXIMUM	:	1.61	:	1.93	:	0.078	:	0.148	:	0.757	:	0.529	:	0.092
MINIMUM	:	0.00	:	0.04	:	0.006	:	0.025	:	0.023	:	0.092	:	0.013
ARITH. MEAN	:	0.59	:	1.01	:	0.029	:	0.063	:	0.348	:	0.186	:	0.042
ARITH. STD. DEV	:	0.56	:	0.49	:	0.022	:	0.036	:	0.268	:	0.117	:	0.025
GEOM. MEAN	:	0.53	:	0.80	:	0.022	:	0.035	:	0.225	:	0.164	:	0.036
1ST QUARTILE	:	0.19	:	0.69	:	0.015	:	0.032	:	0.109	:	0.120	:	0.025
2ND QUARTILE	:	0.39	:	1.02	:	0.019	:	0.034	:	0.340	:	0.144	:	0.034
3RD QUARTILE	:	0.99	:	1.29	:	0.041	:	0.084	:	0.620	:	0.231	:	0.060
MISSING VALUES	:	0	:	0	:	0	:	0	:	0	:	0	:	0
	SODIUM		IRON		ALUMINIUM		MAGNESIUM		LEAD		MANGANESE		COPPER	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13
# OF SAMPLES	:	13	:	13	:	13	:	13	:	13	:	13	:	13
MAXIMUM	:	0.379	:	0.339	:	0.367	:	0.219	:	0.023	:	0.0071	:	0.015
MINIMUM	:	0.063	:	0.005	:	0.006	:	0.006	:	0.001	:	0.0006	:	0.001
ARITH. MEAN	:	0.143	:	0.140	:	0.118	:	0.097	:	0.008	:	0.0034	:	0.004
ARITH. STD. DEV	:	0.087	:	0.116	:	0.121	:	0.068	:	0.006	:	0.0025	:	0.004
GEOM. MEAN	:	0.125	:	0.084	:	0.065	:	0.064	:	0.005	:	0.0023	:	0.003
1ST QUARTILE	:	0.085	:	0.035	:	0.030	:	0.035	:	0.004	:	0.0008	:	0.001
2ND QUARTILE	:	0.122	:	0.109	:	0.083	:	0.091	:	0.008	:	0.0032	:	0.003
3RD QUARTILE	:	0.184	:	0.254	:	0.205	:	0.140	:	0.009	:	0.0060	:	0.007
MISSING VALUES	:	0	:	0	:	0	:	0	:	0.009	:	0	:	0
	NICKEL		VANADIUM		ZINC		CADMIUM		SULFATE NYL		TOTAL SULFUR		TOTAL N	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M**3	13.00	UG/M**3	13.00
# OF SAMPLES	:	13	:	13	:	13	:	13	:	13	:	13.00	:	13.00
MAXIMUM	:	0.00506	:	0.0011	:	0.0036	:	0.0181	:	1.3437	:	1.44	:	0.21
MINIMUM	:	0.00017	:	0.0002	:	0.0006	:	0.00010	:	0.0748	:	0.12	:	0.04
ARITH. MEAN	:	0.00231	:	0.0005	:	0.0020	:	0.00261	:	0.4209	:	0.63	:	0.09
ARITH. STD. DEV	:	0.00176	:	0.0003	:	0.0009	:	0.00450	:	0.3410	:	0.41	:	0.05
GEOM. MEAN	:	0.00146	:	0.0004	:	0.0017	:	0.00052	:	0.3282	:	0.51	:	0.08
1ST QUARTILE	:	0.00046	:	0.0002	:	0.0012	:	0.00018	:	0.2124	:	0.27	:	0.05
2ND QUARTILE	:	0.00180	:	0.0005	:	0.0018	:	0.00023	:	0.3328	:	0.52	:	0.07
3RD QUARTILE	:	0.00408	:	0.0007	:	0.0027	:	0.00523	:	0.4845	:	0.96	:	0.13
MISSING VALUES	:	0	:	0	:	0	:	0	:	0	:	0.00	:	0.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APTOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION-FORT STANLEY LOVEL SITE NO.1

# OF SAMPLES	SULFUR DIOX		SULFATE		NITRIC		NITRATE		CALCIUM		CHLORIDE		POTASSIUM	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13
MAXIMUM	:	19.84	:	11.25	:	0.545	:	1.357	:	1.779	:	0.808	:	0.143
MINIMUM	:	4.54	:	2.58	:	0.116	:	0.564	:	0.259	:	0.364	:	0.044
ARITH. MEAN	:	8.81	:	5.52	:	0.305	:	0.926	:	0.730	:	0.503	:	0.098
ARITH. STD. DEV	:	3.95	:	2.67	:	0.144	:	0.258	:	0.408	:	0.133	:	0.033
GEOM. MEAN	:	8.18	:	5.01	:	0.273	:	0.893	:	0.647	:	0.489	:	0.092
1ST QUARTILE	:	6.54	:	3.56	:	0.221	:	0.741	:	0.496	:	0.408	:	0.069
2ND QUARTILE	:	8.20	:	4.48	:	0.276	:	0.895	:	0.592	:	0.477	:	0.098
3RD QUARTILE	:	9.83	:	6.71	:	0.445	:	1.209	:	0.836	:	0.555	:	0.128
MISSING VALUES	:	1	:	2	:	1	:	2	:	2	:	2	:	1
# OF SAMPLES	SODIUM		IRON		ALUMINIUM		MAGNESIUM		LEAD		MANGANESE		COPPER	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13
MAXIMUM	:	0.322	:	0.510	:	0.620	:	0.336	:	0.036	:	0.0278	:	0.004
MINIMUM	:	0.118	:	0.059	:	0.014	:	0.004	:	0.005	:	0.0072	:	0.001
ARITH. MEAN	:	0.168	:	0.195	:	0.175	:	0.114	:	0.016	:	0.0125	:	0.003
ARITH. STD. DEV	:	0.057	:	0.123	:	0.178	:	0.084	:	0.009	:	0.0058	:	0.001
GEOM. MEAN	:	0.161	:	0.167	:	0.112	:	0.081	:	0.014	:	0.0116	:	0.003
1ST QUARTILE	:	0.130	:	0.116	:	0.054	:	0.079	:	0.010	:	0.0092	:	0.003
2ND QUARTILE	:	0.148	:	0.167	:	0.108	:	0.099	:	0.016	:	0.0108	:	0.003
3RD QUARTILE	:	0.193	:	0.261	:	0.292	:	0.127	:	0.018	:	0.0155	:	0.004
MISSING VALUES	:	1	:	2	:	2	:	2	:	2	:	2	:	2
# OF SAMPLES	VANADIUM		ZINC		CADMIUM		SULFATE NYL		TOTAL SULFUR		TOTAL N		NITRATE	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13
MAXIMUM	:	0.00355	:	0.0075	:	0.0363	:	0.01116	:	12.0209	:	13.00	:	1.62
MINIMUM	:	0.00040	:	0.0014	:	0.0006	:	0.00038	:	0.6205	:	11.23	:	0.97
ARITH. MEAN	:	0.00194	:	0.0022	:	0.0268	:	0.00353	:	2.3251	:	3.76	:	1.24
ARITH. STD. DEV	:	0.00095	:	0.0017	:	0.00951	:	0.00431	:	3.1266	:	6.43	:	0.23
GEOM. MEAN	:	0.00169	:	0.0021	:	0.0205	:	0.00145	:	1.5489	:	1.83	:	0.24
1ST QUARTILE	:	0.00124	:	0.0016	:	0.0279	:	0.00047	:	0.8054	:	6.23	:	1.03
2ND QUARTILE	:	0.00137	:	0.0018	:	0.0290	:	0.00073	:	1.5404	:	5.60	:	1.17
3RD QUARTILE	:	0.00253	:	0.0025	:	0.0302	:	0.00773	:	2.3370	:	6.15	:	1.49
MISSING VALUES	:	2	:	2	:	2	:	2	:	1	:	2.00	:	2.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION=SHALLOW LAKE LOVEL SITE NO.1

	SULFUR-DIOX UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	CALCIUM UG/M3	CHLORIDE UG/M3	POTASSIUM UG/M3
# OF SAMPLES	12	12	12	12	12	12	12
MAXIMUM	13.31	6.38	0.215	0.903	0.628	0.479	0.442
MINIMUM	2.40	0.83	0.056	0.242	0.091	0.000	0.011
ARITH. MEAN	5.52	3.44	0.151	0.568	0.367	0.262	0.139
ARITH. STD. DEV	3.56	1.89	0.053	0.271	0.167	0.129	0.128
GEOM. MEAN	4.70	2.88	0.141	0.505	0.325	0.279	0.094
1ST QUANTILE	3.09	2.04	0.119	0.302	0.262	0.217	0.069
2ND QUANTILE	3.72	3.09	0.145	0.583	0.375	0.240	0.095
3RD QUANTILE	8.59	5.42	0.207	0.836	0.478	0.357	0.193
MISSING VALUES	2	2	2	2	2	2	2
	SODIUM UG/M3	IRON UG/M3	ALUMINIUM UG/M3	MAGNESIUM UG/M3	LEAD UG/M3	MANGANESE UG/M3	COPPER UG/M3
# OF SAMPLES	12	12	12	12	12	12	12
MAXIMUM	0.225	0.195	0.212	0.191	0.029	0.098	0.005
MINIMUM	0.079	0.030	0.008	0.035	0.001	0.0024	0.001
ARITH. MEAN	0.133	0.102	0.095	0.094	0.011	0.0052	0.003
ARITH. STD. DEV	0.057	0.051	0.080	0.045	0.009	0.0025	0.001
GEOM. MEAN	0.123	0.090	0.061	0.085	0.006	0.0047	0.003
1ST QUANTILE	0.083	0.065	0.026	0.066	0.002	0.0033	0.003
2ND QUANTILE	0.108	0.089	0.060	0.076	0.009	0.0044	0.003
3RD QUANTILE	0.197	0.152	0.192	0.121	0.017	0.0075	0.005
MISSING VALUES	2	2	2	2	2	2	2
	NICKEL UG/M3	VANADIUM UG/M3	ZINC UG/M3	CADMIUM UG/M3	SULFATE NYL UG/M3	TOTAL SULFUR UG/M**3	TOTAL N NITRATE UG/M**3
# OF SAMPLES	12	12	12	12	12	12.00	12.00
MAXIMUM	0.00152	0.0012	0.0203	0.00182	1.5807	7.66	1.11
MINIMUM	0.00024	0.0003	0.0018	0.00001	0.5936	2.19	0.36
ARITH. MEAN	0.00059	0.0009	0.0113	0.00056	1.0199	3.91	0.72
ARITH. STD. DEV	0.00047	0.0003	0.0052	0.00053	0.3657	1.60	0.31
GEOM. MEAN	0.00086	0.0008	0.0096	0.00033	0.8589	3.66	0.66
1ST QUANTILE	0.00062	0.0007	0.0084	0.00024	0.6239	2.91	0.39
2ND QUANTILE	0.00104	0.0010	0.0123	0.00039	1.0580	3.40	0.71
3RD QUANTILE	0.00148	0.0011	0.0135	0.00076	1.2903	4.76	1.01
MISSING VALUES	2	2	2	2	2	2.00	2.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION=SMITHS FALLS LOWEL SITE NO.1

# OF SAMPLES	SULFUR DIOX		SULFATE		NITRIC		NITRATE		CALCIUM		CHLORIDE		POTASSIUM	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13
MAXIMUM	4.47	5.79			0.209	0.660			1.794	0.476			0.235	
MINIMUM	0.72	0.15			0.055	0.194			0.134	0.207			0.046	
ARITH. MEAN	2.53	3.11			0.110	0.417			0.835	0.325			0.102	
ARITH. STD. DEV	1.04	1.59			0.047	0.159			0.548	0.076			0.060	
GEOM. MEAN	2.29	2.44			0.101	0.387			0.643	0.317			0.089	
1ST QUANTILE	1.64	2.39			0.070	0.274			0.337	0.258			0.057	
2ND QUANTILE	2.68	3.06			0.093	0.390			0.787	0.327			0.075	
3RD QUANTILE	3.43	4.21			0.148	0.523			1.143	0.391			0.159	
MISSING VALUES	0	0			0	0			1	0			0	
# OF SAMPLES	SODIUM		IRON		ALUMINIUM		MAGNESIUM		LEAD		MANGANESE		COPPER	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13
MAXIMUM	0.334	0.293			0.389	0.548			0.036	0.0205			0.005	
MINIMUM	0.093	0.034			0.013	0.004			0.008	0.0036			0.001	
ARITH. MEAN	0.186	0.136			0.124	0.252			0.016	0.0106			0.002	
ARITH. STD. DEV	0.067	0.077			0.130	0.173			0.008	0.0051			0.001	
GEOM. MEAN	0.175	0.115			0.072	0.160			0.014	0.0025			0.002	
1ST QUANTILE	0.137	0.069			0.025	0.100			0.011	0.0067			0.001	
2ND QUANTILE	0.186	0.123			0.055	0.233			0.013	0.0107			0.002	
3RD QUANTILE	0.230	0.174			0.191	0.379			0.019	0.0136			0.003	
MISSING VALUES	0	1			1	1			1	1			1	
# OF SAMPLES	NICKEL		VANADIUM		ZINC		CADMIUM		SULFATE NIT		TOTAL SULFUR		TOTAL NITRATE	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13
MAXIMUM	0.00299	0.0039			0.0232	0.00241			1.5143	3.10			0.87	
MINIMUM	0.00013	0.0002			0.0064	0.00027			1.5699	0.67			0.26	
ARITH. MEAN	0.00141	0.0013			0.0136	0.00085			1.9281	2.30			0.53	
ARITH. STD. DEV	0.00089	0.0009			0.0054	0.00061			0.9305	0.67			0.19	
GEOM. MEAN	0.00111	0.0011			0.0126	0.00091			0.9763	2.17			0.50	
1ST QUANTILE	0.00082	0.0006			0.0030	0.00061			0.6881	1.90			0.38	
2ND QUANTILE	0.00110	0.0013			0.0133	0.00049			1.0567	2.51			0.55	
3RD QUANTILE	0.00214	0.0016			0.161	0.00141			1.3347	2.78			0.62	
MISSING VALUES	1	1			1	1			0	0.00			0.00	

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION=TOURNEY LAKES LOWEL SITE NO.1

# OF SAMPLES	SULFUR DIOX		SULFATE		NITRIC		NITRATE		CALCIUM		CHLORIDE		POTASSIUM	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13
MAXIMUM		9.13		3.35		0.205		0.318		0.521		0.317		0.161
MINIMUM		1.04		1.12		0.035		0.071		0.028		0.131		0.009
ARITH. MEAN		2.79		2.13		0.097		0.163		0.192		0.179		0.054
ARITH. STD. DEV		2.29		0.68		0.051		0.085		0.142		0.058		0.038
GEOM. MEAN		2.21		2.03		0.086		0.145		0.149		0.172		0.044
1ST QUARTILE		1.27		1.49		0.062		0.101		0.100		0.143		0.032
2ND QUARTILE		1.82		2.08		0.081		0.127		0.140		0.157		0.041
3RD QUARTILE		4.01		2.66		0.131		0.234		0.297		0.186		0.073
MISSING VALUES		0		0		0		0		0		0		0
# OF SAMPLES	SODIUM		IRON		ALUMINIUM		MAGNESIUM		LEAD		MANGANESE		COPPER	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13
MAXIMUM		0.219		0.151		0.152		0.074		0.023		0.065		0.004
MINIMUM		0.089		0.002		0.010		0.020		0.001		0.0011		0.000
ARITH. MEAN		0.114		0.065		0.058		0.040		0.006		0.0039		0.002
ARITH. STD. DEV		0.034		0.040		0.044		0.014		0.007		0.0014		0.001
GEOM. MEAN		0.111		0.044		0.045		0.038		0.003		0.0036		0.002
1ST QUARTILE		0.096		0.041		0.029		0.029		0.002		0.0031		0.001
2ND QUARTILE		0.102		0.063		0.044		0.039		0.003		0.0040		0.002
3RD QUARTILE		0.123		0.091		0.084		0.047		0.008		0.0047		0.002
MISSING VALUES		0		0		0		0		0		0		0
# OF SAMPLES	NICKEL		VANADIUM		ZINC		CADMIUM		SULFATE NYL		TOTAL SULFUR		TOTAL NITRATE	
	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13	UG/M3	13
MAXIMUM		0.01093		0.0019		0.0115		0.01795		1.2945		5.21		13.00
MINIMUM		0.00013		0.0003		0.0007		0.00001		0.3297		1.31		0.52
ARITH. MEAN		0.00184		0.0007		0.0062		0.00350		0.8612		1.13		0.14
ARITH. STD. DEV		0.00286		0.0005		0.0030		0.00607		0.2513		1.13		0.26
GEOM. MEAN		0.00098		0.0005		0.0053		0.00065		0.8203		1.91		0.13
1ST QUARTILE		0.00057		0.0003		0.0045		0.00023		0.6915		1.38		0.23
2ND QUARTILE		0.00089		0.0006		0.0056		0.00033		0.8813		1.56		0.16
3RD QUARTILE		0.00170		0.0009		0.0081		0.00564		1.0043		2.82		0.37
MISSING VALUES		0		0		0		0		0		0.00		0.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 ARIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION

STATION=UXBRIDGE LOVEL SITE NO.1

# OF SAMPLES	SULFUR DIOX		SULFATE		NITRIC		NITRATE		CALCIUM		CHLORIDE		POTASSIUM	
	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11
MAXIMUM	6.52		4.49		0.229		0.635		1.749		0.477		0.342	
MINIMUM	2.85		1.61		0.062		0.230		0.050		0.155		0.029	
ARITH. MEAN	4.17		2.92		0.112		0.459		0.649		0.281		0.094	
ARITH. STD. DEV	1.18		0.89		0.049		0.131		0.483		0.093		0.095	
GEOM. MEAN	4.03		2.80		0.105		0.441		0.475		0.268		0.072	
1ST QUARTILE	3.17		2.29		0.085		0.366		0.304		0.218		0.050	
2ND QUARTILE	3.95		2.67		0.095		0.457		0.610		0.272		0.066	
3RD QUARTILE	5.00		3.66		0.130		0.574		0.809		0.330		0.087	
MISSING VALUES	2		1		1		1		1		1		2	
# OF SAMPLES	SODIUM		IRON		ALUMINIUM		MAGNESIUM		LEAD		MANGANESE		COPPER	
	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11
MAXIMUM	0.192		0.361		0.186		0.152		0.032		0.0199		0.004	
MINIMUM	0.055		0.010		0.017		0.006		0.001		0.0006		0.000	
ARITH. MEAN	0.114		0.111		0.068		0.062		0.012		0.0069		0.003	
ARITH. STD. DEV	0.050		0.095		0.053		0.039		0.009		0.0051		0.001	
GEOM. MEAN	0.104		0.083		0.052		0.049		0.009		0.0052		0.002	
1ST QUARTILE	0.065		0.071		0.029		0.041		0.005		0.0040		0.002	
2ND QUARTILE	0.119		0.083		0.051		0.055		0.012		0.0062		0.003	
3RD QUARTILE	0.149		0.118		0.100		0.078		0.015		0.0078		0.003	
MISSING VALUES	3		1		1		1		1		1		1	
# OF SAMPLES	NICKEL		VANADIUM		ZINC		CADMIUM		SULFATE NYL		TOTAL SULFUR		TOTAL NITRATE	
	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11	UG/M3	11
MAXIMUM	0.0454		0.0060		0.0248		0.00229		2.9918		11.00		11.00	
MINIMUM	0.0012		0.0002		0.0006		0.00016		0.5001		2.05		0.75	
ARITH. MEAN	0.00519		0.0015		0.0142		0.00074		1.3643		3.06		0.32	
ARITH. STD. DEV	0.01384		0.0021		0.0072		0.00069		1.0460		0.66		0.17	
GEOM. MEAN	0.00093		0.0008		0.0107		0.00053		1.5912		3.00		0.45	
1ST QUARTILE	0.00047		0.0004		0.0079		0.00047		0.916		2.45		0.46	
2ND QUARTILE	0.00090		0.0006		0.0147		0.00053		0.8486		3.03		0.61	
3RD QUARTILE	0.00142		0.0018		0.0199		0.00096		2.7749		3.64		0.67	
MISSING VALUES	1		1		1		1		1		2.00		1.00	

ONTARIO MINISTRY OF THE ENVIRONMENT
 APOIS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 STATION-WILKESPORT LOVEL SITE NO.1

	SULFUR DIOX	SULFATE	NITRIC	NITRATE	CALCIUM	CHLORIDE	POTASSIUM
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	22.09	9.13	0.522	1.638	2.735	0.975	0.149
MINIMUM	4.71	0.12	0.018	0.552	0.278	0.433	0.040
ARITH. MEAN	12.12	5.24	0.210	0.992	1.012	0.652	0.093
ARITH. STD. DEV	4.51	2.53	0.145	0.344	0.654	0.153	0.030
GEOM. MEAN	11.37	3.97	0.160	0.940	0.856	0.636	0.088
1ST QUANTILE	9.40	3.70	0.100	0.717	0.539	0.558	0.072
2ND QUANTILE	11.18	4.81	0.168	0.914	0.855	0.639	0.093
3RD QUANTILE	14.76	7.06	0.322	1.351	1.311	0.679	0.118
MISSING VALUES	0	0	0	0	0	0	0
	SODIUM	IRON	ALUMINIUM	MAGNESIUM	LEAD	MANGANESE	COPPER
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	13	13	13	13	13	13	13
MAXIMUM	0.355	0.618	0.643	0.497	0.051	0.0200	0.007
MINIMUM	0.092	0.042	0.020	0.003	0.004	0.0046	0.001
ARITH. MEAN	0.181	0.205	0.176	0.163	0.021	0.0099	0.004
ARITH. STD. DEV	0.073	0.145	0.171	0.129	0.015	0.0041	0.002
GEOM. MEAN	0.170	0.168	0.119	0.109	0.016	0.0092	0.003
1ST QUANTILE	0.133	0.127	0.062	0.083	0.008	0.0069	0.003
2ND QUANTILE	0.156	0.172	0.113	0.135	0.019	0.0095	0.003
3RD QUANTILE	0.208	0.246	0.282	0.222	0.028	0.0116	0.004
MISSING VALUES	0	0	0	0	0	0	0
	NICKEL	VANADIUM	ZINC	CADMIUM	SULFATE NYL	TOTAL SULFUR	TOTAL N
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M**3	NITRATE
# OF SAMPLES	13	13	13	13	13	13.00	13.00
MAXIMUM	0.00350	0.0046	0.0537	0.01495	2.9728	12.65	1.91
MINIMUM	0.00092	0.0018	0.0204	0.00059	0.3884	4.28	0.83
ARITH. MEAN	0.00223	0.0030	0.0353	0.00340	1.3379	7.81	1.20
ARITH. STD. DEV	0.00085	0.0009	0.0102	0.00478	0.7067	2.44	0.31
GEOM. MEAN	0.00206	0.0029	0.0339	0.00158	1.1809	7.46	1.17
1ST QUANTILE	0.00150	0.0021	0.0282	0.00064	0.8564	6.20	1.00
2ND QUANTILE	0.00232	0.0030	0.0355	0.00085	1.2339	7.25	1.11
3RD QUANTILE	0.00297	0.0036	0.0432	0.00575	1.6643	9.60	1.40
MISSING VALUES	0	0	0	0	0	0.00	0.00

PART IV

SUMMARY STATISTICS OF OBSERVED CONCENTRATION BY REGION

ONTARIO MINISTRY OF THE ENVIRONMENT
 APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION

		REGION-CE									
		SULFUR DIOX		SULFATE		NITRIC		NITRATE		CALCIUM	
		UG/M3	35	UG/M3	35	UG/M3	35	UG/M3	35	UG/M3	35
# OF SAMPLES	:										
MAXIMUM	:		7.05		6.73		3.531		11.772		3.462
MINIMUM	:		1.00		1.19		0.062		0.083		0.050
ARITH. MEAN	:		3.60		3.24		0.236		0.732		0.641
ARITH. STD. DEV	:		1.45		1.29		0.595		1.991		0.763
GEOM. MEAN	:		3.27		3.02		0.135		0.376		0.390
1ST QUARTILE	:		2.72		2.34		0.090		0.222		0.216
2ND QUARTILE	:		3.60		3.23		0.120		0.373		0.361
3RD QUARTILE	:		4.42		3.74		0.158		0.546		0.666
MISSING VALUES	:	4		3		2		2		3	
		SODIUM		IRON		ALUMINIUM		MAGNESIUM		LEAD	
		UG/M3	35	UG/M3	35	UG/M3	35	UG/M3	35	UG/M3	35
# OF SAMPLES	:										
MAXIMUM	:		0.375		0.361		0.386		0.177		0.037
MINIMUM	:		0.055		0.010		0.003		0.004		0.001
ARITH. MEAN	:		0.152		0.111		0.104		0.056		0.012
ARITH. STD. DEV	:		0.081		0.081		0.096		0.042		0.009
GEOM. MEAN	:		0.135		0.086		0.063		0.041		0.009
1ST QUARTILE	:		0.092		0.051		0.034		0.031		0.005
2ND QUARTILE	:		0.128		0.084		0.065		0.045		0.010
3RD QUARTILE	:		0.189		0.151		0.167		0.071		0.015
MISSING VALUES	:	5		3		3		3		3	
		NICKEL		VANADIUM		ZINC		CADMIUM		SULFATE NTL	
		UG/M3	35	UG/M3	35	UG/M3	35	UG/M3	35	UG/M3	35
# OF SAMPLES	:										
MAXIMUM	:		0.04454		0.0060		0.0250		0.02330		2.9918
MINIMUM	:		0.00012		0.0002		0.0006		0.00014		0.5001
ARITH. MEAN	:		0.00305		0.0010		0.0134		0.00240		1.2835
ARITH. STD. DEV	:		0.00781		0.0012		0.0071		0.00484		0.7172
GEOM. MEAN	:		0.00113		0.0007		0.0106		0.00097		1.1261
1ST QUARTILE	:		0.00059		0.0005		0.0078		0.00036		1.7569
2ND QUARTILE	:		0.00108		0.0007		0.0131		0.00064		1.0616
3RD QUARTILE	:		0.00268		0.0010		0.0196		0.00215		1.6400
MISSING VALUES	:	3		3		3		3		3	
				TOTAL		TOTAL		TOTAL		TOTAL	
				SULFUR		SULFUR		SULFUR		SULFUR	
				UG/M**3		UG/M**3		UG/M**3		UG/M**3	
				35.00		35.00		35.00		35.00	
				4.65		4.65		4.65		4.65	
				1.63		1.63		1.63		1.63	
				2.88		2.88		2.88		2.88	
				0.72		0.72		0.72		0.72	
				2.79		2.79		2.79		2.79	
				0.53		0.53		0.53		0.53	
				2.27		2.27		2.27		2.27	
				3.46		3.46		3.46		3.46	
				2.00		2.00		2.00		2.00	

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION
 REGION-N-E

	SULFUR-DIOX	SULFATE	NITRIC	NITRATE	CALCIUM	CHLORIDE	POTASSIUM
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	91	91	91	91	91	91	91
MAXIMUM	35.76	6.08	0.264	0.441	1.591	0.869	0.191
MINIMUM	0.19	0.43	0.013	0.000	0.022	0.099	0.009
ARITH. MEAN	3.87	2.28	0.087	0.160	0.266	0.251	0.058
ARITH. STD. DEV	4.87	1.12	0.058	0.104	0.263	0.134	0.035
GEOM. MEAN	2.37	2.01	0.067	0.132	0.182	0.226	0.049
GEOM. STD. DEV	1.20	1.53	0.040	0.081	0.099	0.163	0.035
1ST QUANTILE	2.16	2.10	0.075	0.128	0.176	0.223	0.052
2ND QUANTILE	4.71	2.88	0.129	0.216	0.355	0.290	0.071
3RD QUANTILE	7	7	7	7	7	7	8
MISSING VALUES	7	7	7	7	7	7	8
	SODIUM	IRON	ALUMINIUM	MAGNESIUM	LEAD	MANGANESE	COPPER
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	91	91	91	91	91	91	91
MAXIMUM	0.635	1.580	2.590	0.625	0.039	0.0367	0.099
MINIMUM	0.067	0.002	0.003	0.003	0.001	0.0006	0.000
ARITH. MEAN	0.167	0.163	0.193	0.091	0.008	0.0057	0.005
ARITH. STD. DEV	0.109	0.280	0.405	0.117	0.007	0.0066	0.012
GEOM. MEAN	0.146	0.075	0.079	0.059	0.006	0.0039	0.003
GEOM. STD. DEV	0.102	0.042	0.034	0.033	0.003	0.0029	0.002
1ST QUANTILE	0.134	0.079	0.073	0.054	0.006	0.0038	0.003
2ND QUANTILE	0.166	0.154	0.150	0.086	0.011	0.0059	0.005
3RD QUANTILE	7	7	7	7	7	7	7
MISSING VALUES	7	7	7	7	7	7	7
	NICKEL	VANADIUM	ZINC	CADMIUM	SULFATE NYL	TOTAL SULFUR	TOTAL NITRATE
	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3
# OF SAMPLES	91	91	91	91	91	91.00	91.00
MAXIMUM	0.05417	0.0064	0.1599	0.01930	2.0514	19.26	0.65
MINIMUM	0.00012	0.0002	0.0006	0.00001	0.2111	0.30	0.01
ARITH. MEAN	0.00387	0.0009	0.0118	0.00295	0.7911	2.69	0.25
ARITH. STD. DEV	0.00778	0.0010	0.0180	0.00508	0.3664	2.56	0.15
GEOM. MEAN	0.00157	0.0007	0.0077	0.00066	0.7104	2.02	0.19
GEOM. STD. DEV	0.00063	0.0004	0.0046	0.00023	0.5286	1.33	0.14
1ST QUANTILE	0.00151	0.0007	0.0030	0.00047	0.7515	2.17	0.20
2ND QUANTILE	0.00319	0.0010	0.0131	0.00178	1.0038	3.09	0.35
3RD QUANTILE	7	7	7	7	7	7.00	7.00
MISSING VALUES	7	7	7	7	7	7.00	7.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION

		REGION=NW										
		SULFUR-DIOX	SULFATE	NITRIC	NITRATE	CALCIUM	CHLORIDE	POTASSIUM				
		UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3				
# OF SAMPLES		71	71	71	71	71	71	71				
MAXIMUM	:	2.48	2.27	0.146	0.275	0.146	0.146	0.529				
MINIMUM	:	0.00	0.02	0.000	0.006	0.000	0.000	0.059				
ARITH. MEAN	:	0.66	1.01	0.039	0.082	0.039	0.039	0.146				
ARITH. STD. DEV	:	0.51	0.56	0.031	0.059	0.031	0.031	0.103				
GEOM. MEAN	:	0.57	0.79	0.032	0.066	0.032	0.032	0.131				
1ST QUANTILE	:	0.29	0.62	0.020	0.047	0.020	0.020	0.093				
2ND QUANTILE	:	0.49	0.92	0.031	0.066	0.031	0.031	0.124				
3RD QUANTILE	:	0.89	1.32	0.045	0.099	0.045	0.045	0.152				
MISSING VALUES	:	3	3	3	3	3	3	3				
		SODIUM	IRON	ALUMINUM	MAGNESIUM	LEAD	MANGANESE	COPPER				
		UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3				
# OF SAMPLES	:	71	71	71	71	71	71	71				
MAXIMUM	:	1.216	0.339	0.367	0.223	0.023	0.0071	0.030				
MINIMUM	:	0.032	0.003	0.003	0.003	0.001	0.0006	0.000				
ARITH. MEAN	:	0.133	0.077	0.073	0.059	0.006	0.0027	0.003				
ARITH. STD. DEV	:	0.149	0.070	0.084	0.054	0.005	0.0019	0.004				
GEOM. MEAN	:	0.107	0.052	0.041	0.037	0.004	0.0020	0.001				
1ST QUANTILE	:	0.076	0.032	0.018	0.017	0.002	0.0009	0.001				
2ND QUANTILE	:	0.094	0.054	0.037	0.044	0.005	0.0023	0.001				
3RD QUANTILE	:	0.124	0.097	0.103	0.079	0.008	0.0042	0.002				
MISSING VALUES	:	3	4	3	3	3	3	3				
		NICKEL	VANADIUM	ZINC	CADMIUM	SULFATE NYL	SULFUR	TOTAL N				
		UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3				
# OF SAMPLES	:	71	71	71	71	71	71	71				
MAXIMUM	:	0.03632	0.0014	0.0113	0.01685	1.4028	1.91	71.00				
MINIMUM	:	0.00012	0.0002	0.0006	0.00005	0.0000	0.01	0.37				
ARITH. MEAN	:	0.00199	0.0006	0.0026	0.000273	0.5033	0.67	0.01				
ARITH. STD. DEV	:	0.00443	0.0003	0.0020	0.00462	0.3281	0.40	0.08				
GEOM. MEAN	:	0.00102	0.0005	0.0020	0.00058	0.4194	0.52	0.10				
1ST QUANTILE	:	0.00048	0.0003	0.0008	0.00018	0.2658	0.38	0.07				
2ND QUANTILE	:	0.00101	0.0005	0.0023	0.00027	0.4424	0.59	0.09				
3RD QUANTILE	:	0.00232	0.0008	0.0036	0.00166	0.6478	0.85	0.16				
MISSING VALUES	:	3	3	3	3	3	3.00	3.00				

ONTARIO MINISTRY OF THE ENVIRONMENT
AFIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
SUMMARY STATISTICS OF CONCENTRATION

	REGION=SE									
	SULFUR DIOX UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	CALCIUM UG/M3	CHLORIDE UG/M3	POTASSIUM UG/M3	MANGANESE UG/M3	COOPER UG/M3	TOTAL N NITRATE UG/M ³ ±3
# OF SAMPLES	47	47	47	47	47	47	47	47	47	7
MAXIMUM	16.19	6.88	0.400	1.722	1.794	1.072	6.117	0.0567	0.006	47.00
MINIMUM	0.72	0.15	0.036	0.050	0.011	0.115	0.046	0.0033	0.001	2.12
ARITH. MEAN	3.08	3.53	0.121	0.429	0.598	0.334	0.303	0.0125	0.003	9.39
ARITH. STD. DEV	2.46	1.48	0.065	0.331	0.481	0.203	0.946	0.0115	0.001	0.67
GEOM. MEAN	2.58	3.11	0.108	0.230	0.380	0.294	0.332	0.0092	0.002	2.72
1ST QUANTILE	1.66	2.61	0.081	0.330	0.202	0.210	0.074	0.010	0.002	0.37
2ND QUANTILE	2.68	3.07	0.103	0.334	0.499	0.282	0.110	0.0051	0.002	0.46
3RD QUANTILE	3.45	4.66	0.143	0.519	0.900	0.391	0.169	0.0079	0.002	0.33
MISSING VALUES	6	6	5	5	7	6	6	7	6	0.63
# OF SAMPLES	47	47	47	47	47	47	47	47	47	5.00
MAXIMUM	0.683	0.293	0.389	0.548	0.042	0.0567	0.006	0.0567	0.006	47.00
MINIMUM	0.093	0.016	0.003	0.003	0.005	0.0033	0.001	0.0033	0.001	2.12
ARITH. MEAN	0.215	0.117	0.103	0.122	0.017	0.0125	0.003	0.0125	0.003	9.39
ARITH. STD. DEV	0.131	0.073	0.108	0.131	0.009	0.0115	0.001	0.0115	0.001	0.67
GEOM. MEAN	0.189	0.064	0.061	0.068	0.015	0.0092	0.002	0.0092	0.002	2.72
1ST QUANTILE	0.137	0.063	0.027	0.046	0.010	0.0051	0.002	0.0051	0.002	0.37
2ND QUANTILE	0.173	0.101	0.053	0.080	0.014	0.0079	0.002	0.0079	0.002	0.46
3RD QUANTILE	0.246	0.170	0.143	0.143	0.020	0.0143	0.003	0.0143	0.003	0.33
MISSING VALUES	6	7	7	7	7	7	7	7	7	0.63
# OF SAMPLES	47	47	47	47	47	47	47	47	47	5.00
MAXIMUM	0.00533	0.0059	0.0454	0.00449	1.5713	47.00	47.00	47.00	47.00	47.00
MINIMUM	0.00013	0.0002	0.0058	0.00025	0.4809	0.67	0.13	0.67	0.13	9.39
ARITH. MEAN	0.00167	0.0015	0.0173	0.00094	1.0302	2.72	0.55	2.72	0.55	9.39
ARITH. STD. DEV	0.00131	0.0012	0.0102	0.00101	0.2904	1.33	0.37	1.33	0.37	2.72
GEOM. MEAN	0.00131	0.0012	0.0102	0.00064	0.9852	2.50	0.46	2.50	0.46	9.39
1ST QUANTILE	0.00085	0.0008	0.0091	0.00037	0.8118	2.02	0.33	2.02	0.33	2.72
2ND QUANTILE	0.00136	0.0012	0.0143	0.00048	1.0567	2.63	0.45	2.63	0.45	9.39
3RD QUANTILE	0.00231	0.0017	0.0225	0.00087	1.2668	2.93	0.63	2.93	0.63	9.39
MISSING VALUES	7	7	7	7	6	6.00	5.00	6.00	5.00	5.00

ONTARIO MINISTRY OF THE ENVIRONMENT
 APTOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION

		REGION-SW									
		SULFUR DIOX		SULFATE		NITRIC		NITRATE		CALCIUM	
		UG/M3	63	UG/M3	63	UG/M3	63	UG/M3	63	UG/M3	63
# OF SAMPLES	:	63									
MAXIMUM	:		41.15		14.32		0.704		1.638		2.735
MINIMUM	:		2.40		0.12		0.018		0.242		0.091
ARITH. MEAN	:		10.07		5.06		0.233		0.944		0.759
ARITH. STD. DEV	:		6.33		2.69		0.138		0.332		0.477
GEOM. MEAN	:		8.57		4.11		0.196		0.876		0.638
1ST QUANTILE	:		5.26		3.43		0.131		0.740		0.404
2ND QUANTILE	:		9.60		4.57		0.214		0.902		0.645
3RD QUANTILE	:		12.40		6.35		0.296		1.210		0.951
MISSING VALUES	:	4		5		4		5		5	
		SODIUM		IRON		ALUMINIUM		MAGNESIUM		LEAD	
		UG/M3	63	UG/M3	63	UG/M3	63	UG/M3	63	UG/M3	63
# OF SAMPLES	:	63									
MAXIMUM	:		0.389		0.618		0.643		0.499		0.072
MINIMUM	:		0.079		0.030		0.006		0.003		0.001
ARITH. MEAN	:		0.178		0.180		0.147		0.152		0.020
ARITH. STD. DEV	:		0.074		0.109		0.141		0.105		0.014
GEOM. MEAN	:		0.165		0.152		0.095		0.112		0.014
1ST QUANTILE	:		0.129		0.100		0.053		0.079		0.009
2ND QUANTILE	:		0.163		0.167		0.095		0.122		0.017
3RD QUANTILE	:		0.207		0.217		0.201		0.192		0.029
MISSING VALUES	:	4		5		5		5		5	
		NICKEL		VANADIUM		ZINC		CADMIUM		SULFATE NYL	
		UG/M3	63	UG/M3	63	UG/M3	63	UG/M3	63	UG/M3	63
# OF SAMPLES	:	63									
MAXIMUM	:		0.01367		0.0075		0.0565		0.01970		12.0209
MINIMUM	:		0.00024		0.0003		0.0006		0.00001		0.3134
ARITH. MEAN	:		0.00210		0.0022		0.0285		0.00310		1.5030
ARITH. STD. DEV	:		0.00197		0.0014		0.0132		0.00477		1.5685
GEOM. MEAN	:		0.00161		0.0018		0.0236		0.00117		1.1861
1ST QUANTILE	:		0.00122		0.0013		0.0202		0.00056		0.7619
2ND QUANTILE	:		0.00160		0.0018		0.0288		0.00081		1.2303
3RD QUANTILE	:		0.00254		0.0027		0.0374		0.00253		1.8699
MISSING VALUES	:	5		5		5		5		4	
				TOTAL		TOTAL		TOTAL		TOTAL N	
				SULFUR		SULFATE		NITRATE		NITRATE	
				UG/M**3		UG/M**3		UG/M**3		UG/M**3	
				63.00		21.73		63.00		63.00	
				1.93		0.36		1.93		0.36	
				1.18		0.36		1.18		0.36	
				1.11		0.97		1.11		0.97	
				1.14		1.43		1.14		1.43	
				5.00		5.00		5.00		5.00	

